

SAR S.Y.  
Survey Requested by  
KELLY  
Vessel  
ASPHALT  
Last Three (3) Cargoes

ALLIED TOWING  
Vessel Owner or Agent  
TANK BARGE  
Type of Vessel  
OIL/LEL/USUAL  
Test Method

4-21-86  
Date  
LA  
Specific Location of Vessel  
9:45 AM  
Time Survey Completed

BOW RAKE VOIDS P/S  
STERN RAKE VOIDS P/S  
SAFE FOR WORKERS  
COATED WITH EUREKA PRESERVATION

No. 1 DOUBLE BOTTOM (STBD)  
SAFE FOR WORKERS  
SAFE FOR HOTWORK

DOUBLE BOTTOMS  
No. 1 P/2 P/3 P/4 P/5 P/6 P/5 - SAFE FOR WORKERS  
CARGO TANKS  
No. 1-2-3-4-5  
Pump Room  
TRANSVERSE  
SAFE FOR HOTWORK WITH  
AREA CLEANED OR COVERED  
WITH FIRE RETARDANT  
MATERIAL IN WAY OF HOTWORK  
FIRE WATCH WITH CHARGE  
FIRE HOSE REQD. ON STAND-BY

VENTS TO CARGO TANKS - SAFE FOR HOTWORK WITH PLUG IN  
OPEN END OF VENT PIPE

PORTABLE AIR VENTILATION REQD. IN WORK TANK.

In the event of any physical or atmospheric changes adversely affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

**QUALIFICATIONS:** Transfer of ballast or manipulation of valves or closure equipment tending to alter conditions in pipe lines, tanks or compartments subject to gas accumulation, unless specifically approved in this Certificate, requires inspection and endorsement or reissue of Certificate for the spaces so affected. All lines, vents, heating coils, valves, and similarly enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated.

**STANDARD SAFETY DESIGNATIONS** (partial list, paraphrased from NFPA 306 Subsections 1-6.1 through 1-6.4, and Subsection 5-3.2).

**SAFE FOR WORKERS:** Means that in the compartment or space so designated: (a) the oxygen content of the atmosphere is at least 19.5 percent by volume; and that, (b) toxic materials in the atmosphere are within permissible concentrations; and that, (c) the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Marine Chemist's Certificate.

**NOT SAFE FOR WORKERS:** Means that in the compartment or space so designated, the requirements of Safe for Workers have not been met.

**SAFE FOR HOT WORK:** Means that in the compartment so designated: (a) oxygen content of the atmosphere is at least 19.5 percent by volume, with the exception of inerted spaces or where external hot work is to be performed; and that, (b) the concentration of flammable materials in the atmosphere is below 10 percent of the lower flammable limit; and that, (c) the residues are not capable of producing a higher concentration than permitted by (b) above under existing atmospheric conditions in the presence of fire, and while maintained as directed on the Marine Chemist's Certificate; and further, that, (d) all adjacent spaces containing or having contained flammable or combustible materials have been cleaned sufficiently to prevent the spread of fire, or are satisfactorily inerted, or, in the case of fuel tanks or lube oil tanks, or engine room or fire room bilges, have been treated in accordance with the Marine Chemist's requirements.

**NOT SAFE FOR HOT WORK:** Means that in the compartment so designated, the requirements of Safe for Hot Work have not been met.

**SAFE FOR REPAIR YARD ENTRY:** Means that the compartments and spaces of the flammable cryogenic liquid carrier so designated: (a) have been tested by sampling at remote sampling stations, and results indicate the atmosphere tested to be above 19.5 percent oxygen, and less than 10 percent of the lower flammable limit, or (b) are inerted.

**CHEMIST'S ENDORSEMENT.** This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under Section 2-3 of NFPA 306 and understands conditions and limitations under which it was issued."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed [Signature] Name ABR Company ABR Date 4/21/86 Signed [Signature] Marine Chemist 577 Certificate No.

NOTE: THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS



Survey Requested by <b>SAR-S-V</b> <b>KELLY</b>	Vessel Owner or Agent <b>ALLIED TOWING</b>	Date <b>4-21-86</b>
Vessel <b>ALPHALT</b>	Type of Vessel <b>TANK BARGE</b>	Specific Location of Vessel <b>LA. / GANNING</b>
Last Three (3) Cargoes <b>ASPHALT</b>	Test Method <b>Q/L/L/USUAL</b>	Time Survey Completed <b>9:45 AM</b>

BOW RAKE VOIDS P/S } SAFE FOR WORKERS  
 STERN RAKE VOIDS P/S } COATED WITH EUREKA PRESERVATIVE

No. 1 DOUBLE BOTTOM (STBD) SAFE FOR WORKERS  
 SAFE FOR HOTWORK

DOUBLE BOTTOMS  
 No. 1 P / 2 P/S / 3 P/S / 4 P/S / 5 P/S / 6 P/S - SAFE FOR WORKERS  
 ASPHALT BOTTOMS  
 CARGO TANKS  
 No. 1-2-3-4-5 SAFE FOR HOTWORK WITH  
 AREA CLEANED OR COVERED  
 WITH FIRE RETARDANT  
 MATERIAL IN WAY OF HOTWORK.  
 FIRE WATCH WITH CHARGED  
 FIRE HOSE REQD. ON STAND-BY.

VENTS TO CARGO TANKS - SAFE FOR HOTWORK WITH PLUG IN  
 OPEN END OF VENT PIPE

PORTABLE AIR VENTILATION REQD. IN WORK TANK.

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Signed [Signature] Date 4/21/86 Signed [Signature] Certificate No. 577

NOTE THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS

W.O.# 978

SERIAL NO. D 18787

Survey Requested by SBA S.Y. Vessel Owner or Agent ALLIED Date 8-1-86  
Vessel T-50 Type of Vessel TANK BARGE Specific Location of Vessel SBA/Hennings L  
Last Three (3) Cargoes CAUSTIC SODA Test Method O<sub>2</sub>/LEL/VISUAL Time Survey Completed 3:00 PM.

BOW RAKE VOID  
VOID AFT OF BOW RAKE  
CO<sub>2</sub> COMPT. (FORWARD)

STERN RAKE VOID  
CO<sub>2</sub> COMPT. (AFT)

SAFE FOR WORKERS  
SAFE FOR HOTWORK  
PORTABLE AIR VENTILATION REQ'D. IN WORK TANK

VOID, FORWARD OF STERN RAKE - 0% LEL / 20.8% OXYGEN  
CHECKED THREE SOUNDING TUBES  
UNABLE TO OPEN HATCH

CARGO TANKS #1-2-3-4 P/S  
MID TRANSVERSE COFFERDAMS P/S

SAFE FOR WORKERS  
SAFE FOR HOTWORK

WING VOID D.B. 1"

1-2-3-4-5 P/S - 0% LEL / 20.8% OXYGEN

NOT SAFE FOR WORKERS - SOME CAUSTIC SODA

THIS VESSEL IS SAFE FOR HOTWORK ON EXTERNAL SHELL AND ON  
OPEN DECK.

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Signed

Name

Company

Date

Signed

Marine Chemist

Certificate No.

NOTE THIS CERTIFICATE IS VALID ONLY ON MARINE VESSELS

SBA S.Y. Survey Requested by  
I-50 Vessel  
CAUSTIC SODA Last Three (3) Cargoes  
ALLIED Vessel Owner or Agent  
TANK BARGE Type of Vessel  
O<sub>2</sub>/LEL/Visual Test Method  
8-1-86 Date  
SBA/Tenneco LA. Specific Location of Vessel  
3:00 PM Time Survey Completed

BOW RAKE VOID  
VOID AFT OF BOW RAKE  
CO<sub>2</sub> COMP. (FORWARD)

STERN RAKE VOID  
CO<sub>2</sub> COMP. (AFT)

SAFE FOR WORKERS  
SAFE FOR HOTWORK  
PORTABLE AIR VENTILATION REQD. IN WORK TANK.

VOID, FORWARD OF STERN RAKE - 0% LEL / 20.8% OXYGEN  
CHECKED THEIR SOUNDING TUBE  
UNABLE TO OPEN HATCH

CARGO TANKS #1-2-3-4 P/S  
MID TRANSVERSE COFFERDAMS P/S  
SAFE FOR WORKERS  
SAFE FOR HOTWORK

WING VOID D.B. 1"

1-2-3-4-5 P/S - 0% LEL / 20.8% OXYGEN

NOT SAFE FOR WORKERS - SOME CAUSTIC SODA.

THIS VESSEL IS SAFE FOR HOTWORK ON EXTERNAL SHELL AND ON  
OPEN DECK.

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This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed [Signature] SBA 8/1/86 Date [Signature] K. L. Mercer 577 Marine Chemist Certificate No.

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